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EXAMINER	
LUCAS, ZACHARIAH	
ART UNIT	**PAPER NUMBER**
1648	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/628,957	MONTMINY, MARC R.	
	Examiner	Art Unit	
	Zachariah Lucas	1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *9,10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11-10-2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in the reply filed on September 10, 2004 is acknowledged. The traversal is on the ground(s) that there would be no serious burden in the Examination of all of the claimed inventions. This is not found persuasive because a search for a nucleic acid encoding a sequence is not determinative of the patentability of the peptides it encodes.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 9 and 10 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on September 10, 2004.

Priority

3. It is noted that the present application claims priority, indirectly, to earlier applications as follows, the present application is a DIV an application which is a DIV of 08/961,739, filed on October 31, 1997 (now U.S. Patent 6,063,583), which is a CIP of 08/194,468, filed February 10, 1994 (now U.S. Patent 5,750,336). It is noted that, although application 08/961,739 provides support for the limitations of claims 7 and 8, there does not appear to be such support in disclosure of prior application 08/194,468. Thus, priority with respect to the inventions of these claims is not awarded prior to the date of October 10, 1997.

Sequence Listing

4. The Sequence Listing of the present application is objected to for the following reasons: SEQ ID NO: 2 is asserted to be a protein sequence of the CREB Binding Protein (CBP) encoded by SEQ ID NO: 1. Such is not the case. This can be easily seen by a comparison of the sequence listing of parent patent 6,063,583 (showing SEQ ID NO: 1 along with the encoded protein). While the protein of SEQ ID NO: 2 comprises some of the residues of the CBP encoded by SEQ ID NO: 1, a comparison of the sequences clearly shows that the SEQ ID NO: 2 submitted in the present application does not match the protein encoded by SEQ ID NO: 1.

Appropriate correction of the paper and CRF copies of the sequence listing is therefore required. Correction amending the protein of SEQ ID NO: 2 as presently in the case to the protein sequence encoded would not be considered New Matter the error would have been obvious to those in the art by comparison of the sequence encoded by SEQ ID NO: 1 to the protein of SEQ ID NO: 2.

Information Disclosure Statement

5. The information disclosure submitted on November 6, 2003 has been considered.

6. It is noted that several portions of the listing submitted appear to be in the form of PTO forms 892 from prior applications, or PTO forms 1449 from prior applications which are signed and initialized by the Examiner of the parent application. In this instance, the submissions will be treated as properly submitted. However, it is requested that future listings do not include such documents. This is because it is unclear that the forms 892 and already signed form 1449 were part of the newly submitted IDS listing. Proper submission of these documents as a clean 1449

listing will clarify the status of the lists, prevent confusion of the record, and help avoid errors in the processing of the papers.

7. It is noted that certain documents cited in the various pages of the reference listings have been crossed out. The crossed out citations are to references that are also cited elsewhere in the listings submitted in the application.

Claim Objections

8. Claims 7 and 8 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 reads on a nucleic acid encoding a fragment of CBP "wherein said fragment includes all or a portion of CBP which binds to CREB." For the purposes of this objection, the claim is being read as requiring that the fragment includes a portion of CBP that is sufficient for CREB binding.

Claims 7 and 8 purport to further limit claim 1 to embodiments wherein the fragment comprises the amino acid at position 600 of CBP, but wherein the arginine present at that position in native CBP has been substituted for another amino acid, particularly for glutamine. However, the art discloses that residue 600 is "critical for phosphoserine recognition," and thus for CREB'CBP binding. See, Parker et al., Molec Cell Biol 16: 694-703, at 701 (of record in the November 2003 IDS). Thus, while claim 1 appears to be limited to nucleic acids encoding fragments of CBP that bind to CREB, claims 7 and 8 appear to read on embodiments wherein the

encoded fragments do not bind to CREB. Because claims 7 and 8 read on embodiments outside the scope of claim 1, they are objected to as being improperly dependent claims.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 7 and 8 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. These claims read on fragments of CBP, wherein said fragments are able to bind to CREB, and comprising a substitution in the CBP sequence such that the residue at position 600 is an amino acid other than arginine. However, while the application asserts, without evidence, that the claimed mutations would result in CBP fragment with CREB binding activity, the art teaches that the arginine in this position of the protein is "critical" to the indicated function. See, Parker et al. (supra.). In view of these teachings in the art, and the lack of any evidence to the contrary in the present application, the claims are rejected as reading on inoperative embodiments of the claimed inventions.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. These claims each read on nucleic acids encoding CBP, or a fragment thereof, with the dependant claims indicating that the CBP sequence is that of SEQ ID NO: 2. In the specification, CBP is identified as being encoded by SEQ ID NO: 1, but having the sequence of SEQ ID NO: 2. However, as indicated above, the SEQ ID NO: 2 submitted in the present case does not appear to be the sequence encoded by SEQ ID NO: 2, and does not include an arginine at position 600 as is disclosed as being present in CBP. Additionally, SEQ ID NO: 2 of the present application does not match either the CBP known in the prior art (see e.g., Chrivia et al., Nature 365: 855-59- of record in the November 10, 2003 IDS), or the SEQ ID NO: 2 disclosed as CBP in the parent patent 6,063,583 ("the 583 patent," see, SEQ ID NO: 2 of the parent and column 5 lines 7-23 of the parent patent, which are identical to lines 15-31 on page 10 of the present application). In view of the inconsistency between the teachings of the art and the application with the sequence of SEQ ID NO: 2, it is unclear what is being claimed.

For the purposes of this action, the claims are being treated as though the CBP sequence is that submitted as SEQ ID NO: 2 of the 583 patent.

13. Claims 1, 2, 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims read on an isolated nucleic acid that encodes a fragment of the CREB binding protein (CBP) "wherein said fragment includes all or a potion of CBP which binds to CREB." It is unclear if the indicated claim language is requiring that the fragment comprises a sequence encoding portion of CBP that binds to CREB, or if the claim reads on any fragment of CBP or a fragment of a portion of CBP that binds to CREB. I.e., it is unclear if the

phrase "which binds to CREB" is a functional limitation on the fragment being encoded by the claimed nucleic acid.

Clarification is required.

For the purposes of this action, unless otherwise stated, the claims are read as reading on any fragment of CBP.

14. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim reads on a nucleic acid encoding "a mutant fragment of CREB binding protein (CBP), wherein said fragment includes all or a portion of CBP which binds to CREB." It is unclear what is meant by the phrase "mutant fragment." It is not clear if the terminology is requiring that there be a modification to the CBP sequence itself other than a truncation of the sequence, or if the phrase includes an unmodified fragment of the protein, or an unmodified fragment fused to a non-CBP sequence.

Clarification is required.

For the purposes of this action, the phrase is read as including unmodified CBP sequences fused to non-CBP sequences.

15. Claims 2, 7, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 reads on nucleic acids wherein the encoded CBP fragment "includes the arginine residue at position 600 of SEQ ID NO: 2). Claim 7 reads on

embodiments of the nucleic acid of claim 1 "wherein said fragment the residue at position 600 of SEQ ID NO: 2 is an amino acid other than arginine." Claim 8 read on embodiments "wherein said fragment includes the residue at position 600 of SEQ ID NO: 2 is glutamine." It is not clear from the language of these claims what is being claimed.

SEQ ID NO: 2 of the application is the amino acid sequence of murine CBP. At position 600 of the protein there is an arginine residue. However, the claims are not limited to fragments of SEQ ID NO: 2, but appear to include fragments of any CBP. Other CBP proteins disclosed in the art include amino acids other than an arginine at position 600 of their respective sequences, although they do appear to include an arginine in an equivalent sequence. See e.g., Giles et al., Genomics 42: 96-114 (providing a comparison of human and murine CBP sequences on pages 103-107, and showing on page 104 that the arginine at position 600 in the murine sequence corresponds to the arginine at position 601 in the human sequence, and that residue 600 of human CBP is leucine). In view of the differences among the CBP sequences, it is not clear if claims 2, 7, and 8 are drawn to fragments of SEQ ID NO: 2 in specific, or variants thereof, or are also intended to cover fragments of other CBP sequences with the corresponding arginine or substituted amino acid.

Additionally, the language of claim 7 is unclear because it is unclear what the association between "said fragment" and "the residue at position 600 of SEQ ID NO: 2" is.

Clarification is required.

16. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

17. Claims 1, 2, 5-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For the purposes of this rejection, it is assumed that the claims are intended to be limited to fragments of CBP that bind to CREB. The claims are rejected because the application does not provide adequate written description support for any CBP protein, or for any fragment thereof that is capable of binding to CREB.

The following quotation from section 2163 of the Manual of Patent Examination Procedure is a brief discussion of what is required in a specification to satisfy the 35 U.S.C. 112 written description requirement for a generic claim covering several distinct inventions:

> The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice..., reduction to drawings..., or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus... See Eli Lilly, 119 F.3d at 1568, 43 USPQ2d at 1406.
>
> A "representative number of species" means that the species which are adequately described are representative of the entire genus. Thus, when there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus.

Thus, when a claim covers a genus of inventions, the specification must provide written description support for the entire scope of the genus. Support for a genus is generally found where the applicant has provided a number of examples sufficient so that one in the art would recognize from the specification the scope of what is being claimed.

The claims of the present application lack sufficient support for the claimed inventions. The claims are drawn to isolated nucleic acids encoding any fragment of any CBP protein that has the ability to bind to CREB. Thus, the claims require the description of two genera of compounds. First, in order to determine what fragments may be used, the application must provide sufficient written description support for the genus of all CBP proteins. Second, the application must provide support for the genus of any fragment thereof with the ability to bind CREB.

In the present case, the application discloses a minimum region required for CREB binding as the region comprising residues 461-661 of the CBP of SEQ ID NO: 2 of the 583 patent. While the Applicant has demonstrated that antibodies directed against a particular fragment of this region is able to inhibit CREB-CBP binding (App., pages 24-25- disclosing that an antibody directed against residues 634-648 of CBP inhibited such binding), the Applicant has not demonstrated that any fragment from within this region would be itself capable of binding to CREB. There are no examples of any fragments other than those comprising residues 461-661 that are able to bind CREB. Nor does the application identify any structural characteristic by which those in the art would be able to distinguish CREB binding fragments from those that would not perform this function. Because the Applicant has not provided sufficient species of the claimed genus to demonstrate possession of the full scope of CBP fragments with CREB binding activity, or provided any non-functional means of identifying such fragments, the Applicant has not provided adequate written description support for the claimed genus of CBP fragments with CREB binding activity.

In addition, the claims are drawn broadly to any CBP protein. However, the application discloses only the mouse nucleic acid and CBP protein. There is no description of any other CBP protein, or any description of any fragments of any other CBP proteins other than that of the mouse. It is noted that the Chrivia et al. reference (Nature 365:855-59) appears to disclose both the human and the murine proteins, as well as disclosing the murine DNA encoding the protein. However, this is not sufficient to demonstrate possession of any CBP, as it is not known from these disclosures what the sequences of other CBPs would be. This is because the comparison of proteins in the reference illustrates that there are differences between the sequences, even within the indicated binding domain of residues 461-661. Further, it is unclear if the differences among the proteins are relevant to the functional activity of the proteins (e.g. if the differences between the proteins induces specificity of binding of, for example, human CBP to human and not murine CREB). Thus, the sequences of the CBP proteins, and therefore the nucleic acids encoding them, are not sufficiently described by the application such that those in the art would have known that the Applicant was in possession of the full genus as claimed.

In the absence of additional teachings indicating that the CBP sequences disclosed in the application or known in the art at the time of filing are sufficient to demonstrate possession of all CBP proteins, and all fragments of such that are capable of binding to CREB, the Applicant has not provided adequate support for the full scope of the claimed genus.

18. Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains,

or with which it is most nearly connected, to make and/or use the invention. The claims are rejected because the Applicant has not provided sufficient information to enable those in the art to make or use any fragment or mutant of CBP, and therefore nucleic acids encoding them, without under experimentation.

In making a determination as to whether an application has met the requirements for enablement under 35 U.S.C. 112 ¶ 1, the courts have put forth a series of factors. See, In re Wands, 8 USPQ2d 1400, at 1404 (CAFC 1988); and Ex Parte Forman, 230 U.S.P.Q. 546 (BPAI 1986). The factors that may be considered include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. Id. While it is not essential that every factor be examined in detail, those factors deemed most relevant should be considered.

These claims read on any fragment, or mutant, of CBP, wherein such fragment or mutant is able to bind to CREB. The claims therefore read broadly on a genus comprising every such protein or fragment. However, aside from the fragment comprising residues 461-661 of the protein, the application discloses no other fragments of the protein, or any mutants thereof, that are able to bind to CREB. Nor does the application provide guidance as to what other fragments, or what mutants of the protein, would have the claimed function. There is no identification of specific regions or residues that are required for the protein's CREB-binding activities. Additionally, while the application does suggest the use of polypeptide comprising the KIX

polypeptide with a substitution at residue 600 for the use as an inhibitor of CREB/CBP binding, there is no evidence in the application that this peptide has the claimed function.

The art, however, indicates that the arts of protein mutation, and the determination of the effects of modifications to proteins are largely unpredictable. See e.g., Bowie et al., Science 247:1306-10, esp. page 1306, right column. Thus, absent teachings as to what regions or residues are required for protein function, the Applicant has not enabled those in the art to easily determine what fragments or mutants of CBP have the requisite function of binding to CREB.

Further, while the application asserts that the arginine at position 600 may be substituted without a loss of function, the art provides evidence to the contrary. See, Parker et al. (supra.), page 701 teaching that the arginine at this position is "critical" for the being of CBP to the phosphorylated serine on CREB. Thus, in contrast to the present application's unsupported assertion that such a modified CBP sequence will bind CREB, this reference provides evidence that substitution of the arginine at position 600 would result in the loss of the required activity.

In view of the breadth of the claims, the unpredictability in the art, the limited teachings in support of the invention provided in the application, and the teachings in the art indicating that certain specifically claimed embodiments would not perform the required function, the claims are rejected as lacking enablement.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 1 and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Chrivia et al. (Nature 365: 855-59- of record in the November 2003 IDS). The claims read in nucleic acids encoding polypeptides comprising fragments of CBP. Such nucleic acids were made and used to express fusion proteins comprising fragments of CBP and a marker protein in the Chrivia article. See, pages 857-58, and page 858 (FIG. 3- METHODS). Because the reference teaches a fusion protein, the reference also teaches a "mutant fragment" of SEQ ID NO: 2. The reference therefore teaches the claimed nucleic acids, and anticipates the claims.

21. Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Parker et al. (Molec Cell Biol 16: 694-703- of record in the Nov 2003 IDS). It is noted that, although this reference has a later filing date than the earliest filing date of the present application, these claims are not supported by the disclosure of that earliest application. The inventions of these claims have priority only to prior application 08/961,739, filed on October 31, 1997. These claims read on nucleic acids encoding fragments of CBP including a portion of the region that binds to CREB, and wherein the fragment includes an amino acid corresponding to residue 600 of SEQ ID NO: 2 of the 548 patent, but wherein that residue is a glutamine.

Parker teaches the making of a polypeptide comprising a region of the CBP binding domain wherein residue 600 has been substituted with a glutamine. Page 701, last paragraph of left column. Additionally, while the reference does not state precisely how this polypeptide was

produced, the reference teaches that the other polypeptides produced in the article were made through recombinant means. See e.g., Page 695 (Section titled "Screening for mutant KIX cDNAs"). The reference also teaches that the R600Q polypeptide was made through mutagenesis, thereby indicating that the polypeptide was made through recombinant means. In order to do so, the authors of the article would have had to produce an isolated polynucleotide encoding the mutated polypeptide. The reference therefore implicitly teaches the making of a nucleic acid according to the identified claims. These claims are therefore rejected as anticipated by the prior art.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. Claims 2-5 and 7 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chrivia. These claims describe the claimed nucleic acid with reference to the sequence of SEQ ID NO: 2, which is disclosed as a murine CBP. As described above, the reference teaches a nucleic acid encoding a fusion protein of a CBP binding domain. However, the reference teaches the protein sequences of both murine and human CBP. It is unclear if the CBP encoded by the disclosed vector on page 858 was human or murine. If the encoded protein is murine, claims 2-5 are anticipated, and claim 7 is obvious. If

the encoded CBP is human, then claims 2-5 are obvious and claim 7 is anticipated. This is because it would have been obvious to those in the to substitute the murine sequence for the human sequence in order to determine the appropriate binding site for the respective animal.

Claims 2-5 indicate that the "fragment of CBP is" a region of the CBP of SEQ ID NO: 2. However, the claims require that the nucleic acid comprises a sequence encoding the fragment, but does not require that the nucleic acid only encodes the indicated sequence. Thus, claims 2-5 do not distinguish over the reference.

Claim 7 reads on an embodiment wherein the amino acid at residue 600 is other than an arginine. In the instant case, residue 600 of the proteins disclosed by the reference is either an arginine or a leucine, depending on whether the human or murine nucleic acid is used. See, Giles, supra. Thus, as with the case of claims 2-5 above, the reference either anticipates or renders obvious the claimed nucleic acid.

Conclusion

24. No claims are allowed.

25. The following prior art reference is made of record and considered pertinent to applicant's disclosure. However, while relevant they are also not used as a basis for rejection for the stated reasons.

> Wei et al., Biochemistry, 42:7044-49. This reference teaches that the Arg600 residue of CBP, although probably not directly involved in the binding of CREB to CBP, is associated with the proper folding of the CBP protein, and is therefore required for CREB binding. Page 7045. The reference is considered relevant in that the post-filing teachings of this reference support the teachings of the Parker reference with relation to the requirement of Arg600 for CREB binding.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachariah Lucas whose telephone number is 571-272-0905. The examiner can normally be reached on Monday-Friday, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Z. Lucas
Patent Examiner

JAMES HOUSEL 11/15/04
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TECHNOLOGY CENTER 1600